

<110> HANMI PHARM. IND. CO., LTD.
 <120> IgG Fc FRAGMENT FOR A DRUG CARRIER AND METHOD FOR THE PREPARATION THEREOF
 <130> Q115525
 <140> 10/535,341
 <141> 2006-06-09
 <150> PCT/KR04/02942
 <151> 2004-11-13
 <150> KR 10-2003-0080299
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 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> primer
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 <211> 42
 <212> DNA
 <213> Artificial Sequence
 <220>
 <223> primer
 <400> 2
 gggggatcct catttaccca gagacagggg gaggtctctt tg 42
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 <211> 12
 <212> PRT
 <213> Homo sapiens
 <400> 3
 Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro
 1 5 10
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 <211> 663
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 <213> homo sapiens
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aaggacactc	tcatgatctc	ccggaccct	gaggtcacgt	gcgtgggtggt	ggacgtgagc	120
caggaagacc	ccgaggtcca	gttcaactgg	tacgtggatg	gcgtggaggt	gcataatgcc	180
aagacaaagc	cgcgggagga	gcagttcaac	agcacgtacc	gtgtggtcag	cgctctcacc	240
gtcctgcacc	aggactggct	gaacggcaag	gagtacaagt	gcaaggctc	caacaaaggc	300
ctcccgctct	ccatcgagaa	aaccatctcc	aaagccaaag	ggcagccccg	agagccacag	360
gtgtacaccc	tgccccatc	ccaggaggag	atgaccaaga	accaggtcag	cctgacctgc	420
ctgggtcaaag	gcttctaccc	cagcgacatc	gccgtggagt	gggagagcaa	tgggcagccg	480
gagaacaact	acaagaccac	gcctcccgtg	ctggactccg	acggctcctt	cttcctctac	540
agcaggctaa	ccgtggacaa	gagcagggtg	caggagggga	atgtcttctc	atgctccgtg	600
atgcatgagg	ctctgcacaa	ccactacaca	cagaagagcc	tctccctgtc	tctgggtaaa	660
tga						663

<210> 5
 <211> 69
 <212> DNA
 <213> homo sapiens

<400>	5	
atgaaaaaga	caatcgcatt	tcttcttgca
tctatgttcg	ttttttctat	tgctacaaat
		60
gcccaggcg		69

<210> 6
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400>	6	
tctattgcta	caaatgccca	ggccttccca
accattccct	tatcc	
		45

<210> 7
 <211> 45
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400>	7	
agataacgat	gtttacgggt	ccggaagggt
tggttaaggga	atagg	
		45

<210> 8
 <211> 220

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<212>      PRT
<213>      homo sapiens

<400>      8
Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe
 1          5          10          15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
          20          25          30

Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe
          35          40          45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
 50          55          60

Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
 65          70          75          80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
          85          90          95

Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala
          100          105          110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln
          115          120          125

Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
          130          135          140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145          150          155          160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
          165          170          175

Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu
          180          185          190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
          195          200          205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
          210          215          220

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<210>      9
<211>      654
<212>      DNA
<213>      homo sapiens

<400>      9
gcacctgagt tcctgggggg accatcagtc ttctgttcc ccccaaaacc caaggacact      60
ctcatgatct cccggacccc tgaggtcacg tgcgtggtgg tggacgtgag ccaggaagac      120
cccgagggtcc agttcaactg gtacgtggat ggcgtggagg tgcataatgc caagacaaaag      180
ccgcggggagg agcagttcaa cagcacgtac cgtgtggtca gcgtcctcac cgtcctgcac      240
caggactggc tgaacggcaa ggagtacaag tgcaaggtct ccaacaaagg cctcccgtcc      300

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tccatcgaga aaaccatctc caaagccaaa gggcagcccc gagagccaca ggtgtacacc 360
ctgcccccat cccaggagga gatgaccaag aaccagggtca gcctgacctg cctgggtcaaa 420
ggcttctacc ccagcgacat cgccgtggag tgggagagca atgggcagcc ggagaacaac 480
tacaagacca cgccctcccggt gctggactcc gacggctcct tcttcctcta cagcaggcta 540
accgtggaca agagcagggtg gcaggagggg aatgtcttct catgctccgt gatgcatgag 600
gctctgcaca accactacac acagaagagc ctctccctgt ctctgggtaa atga 654

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<210>      10
<211>      217
<212>      PRT
<213>      homo sapiens

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<400>      10
Ala Pro Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
 1              5              10              15

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
          20              25              30

Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr
          35              40              45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
 50              55              60

Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
 65              70              75              80

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
          85              90              95

Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
          100              105              110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met
          115              120              125

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
          130              135              140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
          145              150              155              160

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
          165              170              175

Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val
          180              185              190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
          195              200              205

Lys Ser Leu Ser Leu Ser Leu Gly Lys
          210              215

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<210>      11

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<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 11
cgccgtgccc agcacctgaa ctctggggg gac 33

<210> 12
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 12
gggggatcct catttaccgc gagacaggg gag 33

<210> 13
<211> 15
<212> PRT
<213> homo sapiens

<400> 13
Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
1 5 10 15

<210> 14
<211> 660
<212> DNA
<213> homo sapiens

<400> 14
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aaggacaccc tcatgatctc ccggaccct gaggtcacat gcgtggtggt ggacgtgagc 120
cacgaagacc ctgaggtcaa gttcaactgg tacgtggacg gcgtggaggt gcataatgcc 180
aagacaaagc cgcgggagga gcagtacaac agcacgtacc gtgtggtcag cgtcctcacc 240
gtcctgcacc aggactggct gaatggcaag gagtacaagt gcaaggctct caacaaagcc 300
ctcccagccc ccatacagaa aaccatctcc aaagccaaag ggcagccccg agagccacag 360
gtgtacaccc tgccccatc ccgggatgag ctgaccaaga accaggtcag cctgacctgc 420
ctggtaaaag gcttctatcc cagcgacatc gccgtggagt gggagagcaa tgggcagccg 480
gagaacaact acaagaccac gcctcccgtg ctggactccg acggctcctt ctctctctac 540
agcaagctca ccgtggacaa gagcaggtgg cagcagggga acgtcttctc atgctccgtg 600
atgcatgagg ctctgcacaa ccactacacg cagaagagcc tctccctgtc tccgggtaaa 660

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<210>      15
<211>      220
<212>      PRT
<213>      homo sapiens

<400>      15
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
  1              5              10              15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
      20              25              30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
      35              40              45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
      50              55              60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
      65              70              75              80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
      85              90              95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
      100              105              110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
      115              120              125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
      130              135              140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
      145              150              155              160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
      165              170              175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
      180              185              190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
      195              200              205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
      210              215              220

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<210>      16
<211>      26
<212>      DNA
<213>      Artificial Sequence

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<220>
<223>      primer

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<400>      16
cggcacctga actcctgggg ggaccg

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<210> 17
 <211> 651
 <212> DNA
 <213> homo sapiens

<400> 17
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 ctcatgatct cccggacccc tgaggtcaca tgcgtggtgg tggacgtgag ccacgaagac 120
 cctgaggtca agttcaactg gtacgtggac ggcgtggagg tgcataatgc caagacaaaag 180
 ccgcggggagg agcagtacaa cagcacgtac cgtgtggtca gcgtcctcac cgtcctgcac 240
 caggactggc tgaatggcaa ggagtacaag tgcaaggtct ccaacaaaagc cctcccagcc 300
 cccatcgaga aaaccatctc caaagccaaa gggcagcccc gagagccaca ggtgtacacc 360
 ctgcccccat cccgggatga gctgaccaag aaccagggtca gcctgacctg cctgggtcaaa 420
 ggctttctatc ccagcgacat cgccgtggag tgggagagca atgggcagcc ggagaacaac 480
 tacaagacca cgcctcccggt gctggactcc gacggctcct tcttcctcta cagcaagctc 540
 accgtggaca agagcagggtg gcagcagggg aacgtcttct catgctccgt gatgcatgag 600
 gctctgcaca accactacac gcagaagagc ctctccctgt ctccgggtaa a 651

<210> 18
 <211> 217
 <212> PRT
 <213> homo sapiens

<400> 18
 Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
 1 5 10 15
 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
 20 25 30
 Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
 35 40 45
 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
 50 55 60
 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
 65 70 75 80
 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
 85 90 95
 Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
 100 105 110
 Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu
 115 120 125
 Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
 130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
165 170 175

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
195 200 205

Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215

<210> 19
<211> 29
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 19
cgccgtgccc agcacctccg gtggcggga

29

<210> 20
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> primer

<400> 20
gggggatcct catttaccgc gagacagggga gag

33

<210> 21
<211> 12
<212> PRT
<213> homo sapiens

<400> 21
Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro
1 5 10

<210> 22
<211> 657
<212> PRT
<213> homo sapiens

<400> 22
Cys Cys Gly Thr Gly Cys Cys Cys Ala Gly Cys Ala Cys Cys Thr Cys
1 5 10 15

Cys Gly Gly Thr Gly Gly Cys Gly Gly Ala Cys Cys Gly Thr Cys
20 25 30

Ala Gly Thr Cys Thr Thr Cys Cys Thr Cys Thr Thr Cys Cys Cys Cys
 35 40 45
 Cys Cys Ala Ala Ala Ala Cys Cys Cys Ala Ala Gly Gly Ala Cys Ala
 50 55 60
 Cys Cys Cys Thr Cys Ala Thr Gly Ala Thr Cys Thr Cys Cys Cys Gly
 65 70 75 80
 Gly Ala Cys Cys Cys Cys Thr Gly Ala Gly Gly Thr Cys Ala Cys Ala
 85 90 95
 Thr Gly Cys Gly Thr Gly Gly Thr Gly Gly Thr Gly Gly Ala Cys Gly
 100 105 110
 Thr Gly Ala Gly Cys Cys Ala Cys Gly Ala Ala Gly Ala Cys Cys Cys
 115 120 125
 Thr Gly Ala Gly Gly Thr Cys Cys Ala Gly Thr Thr Cys Ala Ala Cys
 130 135 140
 Thr Gly Gly Thr Ala Cys Gly Thr Gly Gly Ala Cys Gly Gly Cys Gly
 145 150 155 160
 Thr Gly Gly Ala Gly Gly Thr Gly Cys Ala Thr Ala Ala Thr Gly Cys
 165 170 175
 Cys Ala Ala Gly Ala Cys Ala Ala Ala Gly Cys Cys Gly Cys Gly Gly
 180 185 190
 Gly Ala Gly Gly Ala Gly Cys Ala Gly Thr Thr Thr Ala Ala Cys Ala
 195 200 205
 Gly Cys Ala Cys Gly Thr Thr Thr Cys Gly Thr Gly Thr Gly Gly Thr
 210 215 220
 Cys Ala Gly Cys Gly Thr Cys Cys Thr Cys Ala Cys Cys Gly Thr Cys
 225 230 235 240
 Gly Thr Gly Cys Ala Cys Cys Ala Gly Gly Ala Cys Thr Gly Gly Cys
 245 250 255
 Thr Gly Ala Ala Thr Gly Gly Cys Ala Ala Gly Gly Ala Gly Thr Ala
 260 265 270
 Cys Ala Ala Gly Thr Gly Cys Ala Ala Gly Gly Thr Cys Thr Cys Cys
 275 280 285
 Ala Ala Cys Ala Ala Ala Gly Gly Cys Cys Thr Cys Cys Cys Ala Gly
 290 295 300
 Cys Cys Cys Cys Cys Ala Thr Cys Gly Ala Gly Ala Ala Ala Ala Cys
 305 310 315 320
 Cys Ala Thr Cys Thr Cys Cys Ala Ala Ala Cys Cys Ala Ala Ala
 325 330 335
 Gly Gly Gly Cys Ala Gly Cys Cys Cys Cys Gly Ala Gly Ala Gly Cys
 340 345 350
 Cys Ala Cys Ala Gly Gly Thr Gly Thr Ala Cys Ala Cys Cys Cys Thr
 355 360 365

Gly Cys Cys Cys Cys Cys Ala Thr Cys Cys Cys Gly Gly Gly Ala Ala
 370 375 380
 Gly Ala Gly Ala Thr Gly Ala Cys Cys Ala Ala Gly Ala Ala Cys Cys
 385 390 395 400
 Ala Gly Gly Thr Cys Ala Gly Cys Cys Thr Gly Ala Cys Cys Thr Gly
 405 410 415
 Cys Cys Thr Gly Gly Thr Cys Ala Ala Ala Gly Gly Cys Thr Thr Cys
 420 425 430
 Thr Ala Thr Cys Cys Cys Ala Gly Cys Gly Ala Cys Ala Thr Cys Gly
 435 440 445
 Cys Cys Gly Thr Gly Gly Ala Gly Thr Gly Gly Gly Ala Gly Ala Gly
 450 455 460
 Cys Ala Ala Thr Gly Gly Gly Cys Ala Gly Cys Cys Gly Gly Ala Gly
 465 470 475 480
 Ala Ala Cys Ala Ala Cys Thr Ala Cys Ala Ala Gly Ala Cys Cys Ala
 485 490 495
 Cys Gly Cys Cys Thr Cys Cys Cys Ala Thr Gly Cys Thr Gly Gly Ala
 500 505 510
 Cys Thr Cys Cys Gly Ala Cys Gly Gly Cys Thr Cys Cys Thr Thr Cys
 515 520 525
 Thr Thr Cys Cys Thr Cys Thr Ala Cys Ala Gly Cys Ala Ala Gly Cys
 530 535 540
 Thr Cys Ala Cys Cys Gly Thr Gly Gly Ala Cys Ala Ala Gly Ala Gly
 545 550 555 560
 Cys Ala Gly Gly Thr Gly Gly Cys Ala Gly Cys Ala Gly Gly Gly Gly
 565 570 575
 Ala Ala Cys Gly Thr Cys Thr Thr Cys Thr Cys Ala Thr Gly Cys Thr
 580 585 590
 Cys Cys Gly Thr Gly Ala Thr Gly Cys Ala Thr Gly Ala Gly Gly Cys
 595 600 605
 Thr Cys Thr Gly Cys Ala Cys Ala Ala Cys Cys Ala Cys Thr Ala Cys
 610 615 620
 Ala Cys Gly Cys Ala Gly Ala Ala Gly Ala Gly Cys Cys Thr Cys Thr
 625 630 635 640
 Cys Cys Cys Thr Gly Thr Cys Thr Cys Cys Gly Gly Gly Thr Ala Ala
 645 650 655
 Ala

<210> 23
 <211> 219
 <212> PRT
 <213> homo sapiens

<400> 23
Pro Cys Pro Ala Pro Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro
1 5 10 15
Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
20 25 30
Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Asn
35 40 45
Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
50 55 60
Glu Glu Gln Phe Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val
65 70 75 80
Val His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
85 90 95
Asn Lys Gly Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys
100 105 110
Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
115 120 125
Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
130 135 140
Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
145 150 155 160
Asn Asn Tyr Lys Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe
165 170 175
Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
180 185 190
Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
195 200 205
Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215

<210> 24
<211> 10
<212> PRT
<213> Homo sapiens

<400> 24
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
1 5 10

<210> 25
<211> 10
<212> PRT
<213> Homo sapiens

<400> 25
Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly
1 5 10

<210> 26
<211> 10
<212> PRT
<213> Homo sapiens

<400> 26
Pro Cys Pro Ala Pro Pro Val Ala Gly Pro
1 5 10